

Part 1 - Amendments to Specification

1. Replace the paragraph on page 1, lines 5-15, with the following paragraph:

This invention is related to other inventions made by at least one of the inventors herein for Individually-Contoured Seat Cushion and Shape Capturing and Fabricating Method for Seat Cushion described in U.S. patent application Serial No. ~~[249:301]~~ 10/628,858, for Modular Seat Cushion with Interlocking Human Support and Base Portions and Method of Creating a Seat Cushion described in U.S. patent application Serial No. ~~[249:302]~~ 10/628,859, and for Contoured Seat Cushion and Method for Offloading Pressure from Skeletal Bone Prominences and Encouraging Proper Postural Alignment described in U.S. patent application Serial No. ~~[249:303]~~ 10/628,860, all of which are filed concurrently herewith and all of which are assigned to the assignee of the present invention. The subject matter of these concurrently-filed applications is incorporated herein by reference.

2. Replace the paragraph on page 3, lines 11-21, with the following paragraph:

A new support theory is described in the above-identified U.S. patent application Serial No. ~~[249:303]~~ 10/628,860. This new support theory is based on offloading and isolating pressure and shear forces from the skin surrounding the bony prominences of the user's pelvic area skeletal structure. Applying this support theory involves configuring the support contour with additional clearance, and therefore achieving greater pressure relief, around the ischial tuberosities, the greater trochantors, the coccyx and the sacrum in the pelvic area, while transferring more support to the broader tissue and musculature below the proximal thigh leg bones and at the posterior lateral buttocks. Pressure and shear forces on the skin around the bony prominences is relieved, and pressure is transferred to the broader tissue areas to encourage proper postural alignment.

3. Replace the paragraph on page 5, lines 1-18, with the following paragraph:

Some support theories are primarily dependent on clearance, rather than pressure. One such support theory is described in the above-referenced U.S. patent

application Serial No. ~~[249-303]~~ 10/628,860. This support theory requires sufficient clearance at locations where pressure is completely offloaded from the bony prominences of the pelvic area of the user, and maintenance of that clearance during acceptable changes in posture of the user, during normal ranges of user movement. The clearance should also accommodate a reasonable level of tissue change or atrophy over time. Under these circumstances, the degree or amount of clearance becomes a very important variable. The degree of clearance relates to the ability of the support contour to accommodate or compensate for the range of posture changes, normal movement and tissue and musculature atrophy before those changes become so significant that the clearance disappears and the risk of pressure ulcers arises. An indication of a relative lack of pressure under one postural, movement or tissue condition may not be a reliable indication of sufficient clearance to avoid pressure and shear forces on the tissue under other dynamic conditions. A pressure mapping device is not entirely useful to evaluate the clearance relationship of the user's anatomy relative to the support contour of the seat cushion, under these circumstances.

4. Replace the paragraph on page 9, lines 15-26, with the following paragraph:

One advantageous type of support theory is described in the above-referenced U.S. patent application serial number ~~[249-303]~~ 10/628,860. That support theory involves offloading pressure and shear forces from the skin in areas surrounding bony prominences of the user's skeletal structure. The offloading is accomplished by providing a relatively significant relief or clearance between the support contour 22 and the bony prominences created by the ischial tuberosities 30, the greater trochanters 32, and the coccyx 34 and sacrum 36 of the pelvic area skeletal structure 38, as understood from Figs. 3, 7 and 8. The greater relief for clearance in these areas is established by the configuration of the support contour 22. The support contour 22 faces upward to contact and support the tissues of the user which surround the pelvic area skeletal structure 38 and the skeletal structure of the proximal thigh leg bones (the femurs) 40.

5. Replace the paragraph on page 11, lines 20-29, with the following paragraph:

The increased clearance from the areas 44, 46 and 48, and the increased prominence of the support areas 52, 54, 56 and 58, make the support contour 32 more generally applicable to different classes of users. By adjusting the extent of clearances in the areas 44, 46 and 48 and the extent of the prominence of the support areas 52, 54, 56 and 58, a few different sizes or configurations of the support contour 22 will generally accommodate a relatively wide population of users. The benefits of the support contour 22 are therefore able to be extended to a substantial population of wheelchair users by providing a few different types of seat cushions. This benefit is more specifically described in the above-referenced U.S. patent application Serial No. ~~[249:302]~~ 10/628,859.

6. Replace the paragraph on page 18, line 28 through page 19, line 12, with the following paragraph:

One of the particularly useful aspects of the clearance measuring devices of the present invention is to assist a user in selecting a wheelchair seat cushion having a support contour 22 with adequate support characteristics for that user's anatomy. In the circumstance where a few different wheelchair seat cushions with different support contours 22 are used to address the needs of a substantial portion of the wheelchair user population without using a custom cushion, as discussed more particularly in the above-referenced U.S. patent application Serial No. ~~[249:302]~~ 10/628,859, the adequacy of each different cushion is easily determined by placing one of the clearance measuring devices 60, 80 or 90 between the user and the support contour of the proposed wheelchair seat cushion to evaluate the extent of clearance and thus the effectiveness of the support contour with respect to the bony prominences of that particular user. To evaluate the clearance under exaggerated conditions, the user may even be forced downward into the support contour. The added force allows evaluation of the adaptability of the clearance to change. In this manner, the proper size and fit of a wheelchair cushion for a particular user is readily determined.